

Abstract of the Disclosure

A poppet-type check valve for controlling fluid flow, and including a valve housing having an interior and first and second ports therein communicating with the interior of the valve housing for permitting fluid flow from an upstream side to a downstream side thereof. At least one valve assembly is disposed within the interior of the valve housing for controlling the fluid flow therethrough. The valve assembly includes a valve seat positioned in the interior of the valve housing and a seal retainer positioned in the interior of the valve housing downstream from the valve seat and mounted on a stem. The seal retainer and the stem are axially moveable away from the valve seat in response to fluid flow in a downstream direction at a predetermined flow rate, and axially moveable towards and into sealing engagement with the valve seat in response to a downstream fluid flow at a flow rate less than the predetermined flow rate. A plurality of springs is allowed to compress past the position of neutral load for the purpose of elongating the stroke of the poppet. The elongated stroke results in enhanced flow performance.